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## PATENT ABSTRACTS OF JAPAN

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## (54) METHOD AND DEVICE FOR CONTROL OF ROTOR

(57) Abstract:

PURPOSE: To keep the fixed loop gain of a servo means by providing a means which delivers a signal of a prescribed frequency corresponding to a revolving speed of a rotor and a divider having its dividing ratio equal to the value equivalent to the square of the speed double as high as a reference speed and supplying the signals divided by the divider to a speed servo means.

CONSTITUTION: A magnetized plate 2 containing magnetic poles formed at the same angle intervals is attached to a capstan shaft 1. A magnetic sensor 3 is set close to the circumferential surface of the plate 2. The signals are supplied to a 1/n dividing circuit 4 from the sensor 3 and at the same time the signal corresponding to the speed double as high as the revolving speed of a rotor is supplied to the divider 4 from a terminal 5. Then the dividing ratio of the circuit 4 is defined as n=1 with a reference speed, n=4 with a double

speed and n=16 with a 4-fold speed respectively. Thus the angle space  $\theta$  between magnetic poles is changed apparently and then  $\theta$ = $\theta$ 0 is satisfied with the reference speed. Therefore  $\theta$ = $4\theta$ 0 and  $\theta$ = $16\theta$ 0 are satisfied apparently with the double speed and the 4-fold speed respectively. As a result, the space  $\theta$  is equal to the 4-fold and 16-fold values and therefore the transmission function is always constant regardless of the change of the angular velocity  $\omega$ .

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$$\frac{dT}{d\omega} \mid_{\omega=\omega_0} = -\frac{\theta}{\omega_0^2} \mid$$

